

SYSTEM AND METHOD FOR BLOCK ERROR CORRECTION
IN PACKET-BASED DIGITAL COMMUNICATIONS

ABSTRACT OF THE DISCLOSURE

5 A system and method for efficiently correcting block errors in packet-based digital communications are provided whereby the ratio of redundant symbols/message symbols over the length of a data packet decreases in order to more efficiently use available bandwidth. The reduction of this ratio, and subsequently the change in a corresponding framing schedule, may be determined
10 through negotiations between the transmitting device and the receiving devices. Each receiving device calculates a redundancy requirement based on signal-to-noise ratio samples. This requirement is returned to the transmitting device in the form of a schedule request. The transmitting device determines if a new framing schedule is needed based on the schedule request, and communicates this new framing schedule
15 to the receiving device. Once the receiving device acknowledges receipt of the new schedule, the transmitting device switches to the new framing schedule for future data packet transmissions.